

# Predicting Depression And Help-Seeking Attitudes Among Latinos: Acculturation And Cultural Values

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PREDICTING DEPRESSION AND HELP-SEEKING ATTITUDES  
AMONG LATINOS: ACCULTURATION  
AND CULTURAL VALUES

By

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ABSTRACT  
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The present study examined the influence of cultural variables in predicting depressive symptoms and attitudes towards seeking psychological help among Latino adults living in the U.S. Cultural values investigated include: acculturation, values of *familismo* (i.e., family support, family obligations, and family as referent), and mainstream cultural values (i.e., independence/self-reliance and competition/personal achievement). The current study examined data from 191 Latino participants in the Midwest. Results showed that the most significant risk factors predicting depressive symptomatology were low education level and lower income, while the most influential factors predicting positive attitudes toward seeking mental health services were older age and gender. The greatest predictors of negative attitudes towards help-seeking were independence/self-reliance and the value of family as referent. These factors relate to Latino cultural values and offer insight for research and clinical practice with Latinos.

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## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	i
LIST OF TABLES .....	v
CHAPTER	
I. INTRODUCTION .....	1
A. Cultural Variables .....	4
B. Familismo .....	5
i. Acculturation and Familismo .....	7
C. Mainstream Values .....	8
D. Depression .....	9
i. Familismo and Depression .....	10
E. Help-Seeking Attitudes .....	12
i. Cultural Values and Help-Seeking .....	13
ii. Mainstream Values and Help-Seeking .....	14
F. Study Objectives .....	14
II. METHOD .....	16
A. Data Collection .....	16
B. Measures .....	17
i. Demographic Questionnaire .....	17
ii. Acculturation.....	17
iii. Cultural Values .....	18
iv. Help-Seeking.....	18
v. Depression.....	19

III. RESULTS.....	20
A. Preliminary Analyses.....	20
B. Participants .....	21
C. Descriptive Statistics .....	22
i. Differences by Gender .....	25
ii. Differences by Nativity Status.....	25
D. Bivariate Correlations among Main Variables .....	27
E. Predictors of Depression.....	28
F. Predictors of Help-Seeking Attitudes .....	30
G. Nativity Status as a Moderator of Depression.....	33
H. Nativity Status as a Moderator of Help-Seeking Attitudes .....	35
I. Supplementary Exploratory Analyses .....	37
i. Factor Analysis .....	37
ii. Descriptive Statistics and Bivariate Correlations of Positive and Negative Help-Seeking Attitudes.....	40
iii. Predictors of Positive Help-Seeking Attitudes .....	41
iv. Predictors of Negative Help-Seeking Attitudes.....	43
IV. DISCUSSION.....	45
A. Depression .....	45
B. Attitudes of Help-Seeking .....	48
C. Attitudes Towards Seeking Psychological Help-Scale.....	50
i. Supplementary Analyses .....	51
D. Limitations.....	53

E. Implications and Future Directions .....	54
V. BIBLIOGRAPHY .....	59

## LIST OF TABLES

Table 1: Descriptive Statistics for Participating Demographic Characteristics .....	21
Table 2: Means, Standard Deviations, and Correlations among Main Study Variables.....	24
Table 3: Means and (Standard deviations) of Main Study Variables by Gender and Nativity Status .....	26
Table 4: Hierarchical Regressions Analysis for Variables Predicting Depression .....	29
Table 5: Hierarchical Regressions Analysis for Variables Predicting Help-Seeking Attitudes .....	32
Table 6: Summary of Exploratory Factor Analysis for Help-Seeking Attitudes.....	38
Table 7: Summary of Two-Factor Exploratory Analysis for Help-Seeking Attitudes ..	39
Table 8: Hierarchical Regression Assessing Predictors of Positive Help-Seeking Attitudes .....	42
Table 9: Hierarchical Regression Assessing Predictors of Negative Help-Seeking Attitudes .....	44

## Introduction

Latinos have become the fastest growing population in the United States (U.S. Census Bureau, 2010). In 2008, it was reported that Latinos comprised 15.4% of the U.S., making them the largest ethnic minority group (Pew Hispanic Center, 2010). Among the different subgroups representing the Latino population (e.g., Puerto Ricans, Cubans, South Americans, etc.), Mexican Americans have become the largest ethnic subgroup and account for approximately 60% of the Latino population (U.S. Census Bureau, 2010). Given these dramatic demographic changes to the United States population, there is an imperative need to better understand and address the factors that contribute to the mental health needs of this community.

In the U.S., Latinos face substantial economic, social, and political challenges and are frequently burdened with stressors related to discrimination, language, and immigration (Alegria et al., 2008; Cook, Alegria, Lin, & Guo, 2009; Kouyoumdjian, Zamboanga, & Hansen, 2003; Shattell, Smith, Quinlan-Colwell, & Villalba, 2008). One of the greatest difficulties that Latinos in the U.S. face is the challenge of adapting to the new mainstream American culture. The U.S. mainstream culture differs greatly from the Latino culture, in values, beliefs, language spoken, and behavioral norms (Gonzalez, Fabrett, & Knight, 2009; Rogler, Cortes, & Malgady, 1991), therefore Latinos become encumbered with the additional task of adapting to mainstream American culture while at the same time maintaining their own cultural values. This process can be overwhelming, scary, and stressful, as Latinos must decide which qualities to preserve from their own culture and which qualities to incorporate from the host culture that will facilitate their survival in their new environment. The term *cultural adaptation* has been commonly

used to refer to this dual adaptation process (Berry, 2003; Gonzalez, Knight, Morgan-Lopez, Saenz, & Sirolli, 2002; Torres & Rollock, 2004). It is believed that the stress associated with this cultural adaptation process may place Latinos at a greater risk for the development of negative mental health outcomes, such as depression, drug, and alcohol abuse (Berry, 2003; Knight et al., 2010; Rogler, Cortes, & Malgady, 1991; Torres & Rollock, 2004). Thus, to the extent that Latinos repeatedly face these different economic, social, and cultural challenges, the risk of developing mental health problems such as depression increases (Mendelson, Rehkopf, & Kubzansky, 2008).

Prevalence rates for depression disorder are reportedly lower for Latinos compared to non-Latino Whites (Alegria et al., 2008). However, compared to Latinos immigrants, depression rates are significantly higher for U.S. born Latinos (Alegria et al., 2008). Furthermore, there is evidence to suggest that with greater time spent in the U.S., Latino rates of depression may become comparable to that of non-Latino Whites (Alegria et al., 2008; Grant et al., 2004). Therefore, it appears that nativity status and longer years spent in the U.S. may increase the risk of mental illness among Latinos; this pattern has become to be known as the “immigrant paradox” (Alegria et al., 2008; Cook et al., 2009; Vega, Sribney, Aguilar-Gaxiola, & Kolody, 2004).

In spite of repeated exposure to economic, social, and cultural stressors and being at a higher risk for depression, Latinos are not likely to seek mental health services. In fact, studies have continuously highlighted that utilization rates are among the lowest for Latinos (Alderete, Vega, Kolody, & Aguilar-Gaxiola, 1999; Kessler et al., 1994; Leong, Wagner, & Tata, 1995; Sue, 2003). For example, reports on service use have indicated that 1 in 11 Latinos with a mental health disorder will contact a mental healthcare

provider, while less than 1 in 5 contact a general healthcare provider (U.S. Department of Health and Human Services, 2001). In order to understand the underpinnings of this pattern of underutilization, it is important to identify the factors that may influence Latinos' attitudes towards seeking psychological help. Fischer and Farina (1995) have suggested that a theoretical component of predicting service utilization is the individual's attitude toward help-seeking. Therefore, by exploring the factors that influence Latinos' attitudes towards help-seeking, research can better aid mental health professionals in addressing disparities in service use.

Cultural values are an important construct to examine among Latinos because they are components of an individual's culture that are known to guide the behavior and interactions with others (Knight, Bernal, Garza, Cota, & Ocampo 1993; Umaña -Taylor & Fine, 2004). Latinos living in the U.S. are not only guided by the values of the mainstream American culture but are also guided by the values inherent to their own ethnicity and culture. Therefore, if these values can drive behavior and expectations, it is crucial that we understand which values of Latino and mainstream culture are influencing mental health outcomes like depression and help-seeking behaviors.

Thus, the purpose of the current study examines the influence of cultural variables in predicting depressive symptoms and help-seeking attitudes among Latino adults living in the U.S. Although, there is a wide range of significant cultural variables that could conceivably be related to depression and help-seeking attitudes, this study is most concerned with the cultural constructs of *familismo*, *mainstream values*, and *acculturation*. The Latino value of "*familismo or familism*" refers to the strong attachment, identification with both the nuclear, and extended family. It is characterized

by strong feelings of loyalty, reciprocity, and solidarity among family members (Chun, Organista, & Marin, 2003; Marin & Marin, 1991). *Mainstream values* refer to the values associated with contemporary American culture that emphasize the importance of acquiring autonomy and self-reliance, as well as standing out from the crowd through personal achievement and competition (Knight et al., 2010). *Acculturation* refers to the behavioral, cognitive, and attitudinal changes that occur when an individual is adapting to the mainstream or host culture, which is different from his or her own (Berry, 2003).

This study will add to the empirical literature on cultural values and their influence on depressive symptomatology and help-seeking attitudes among Latinos adults. Although much of the literature exploring the relationship between depression and cultural influences has focused on acculturation, this research explores other cultural influences that may contribute to the risk or protective factors of depression among Latinos. Similarly, this research will help bridge the gap of literature examining the cultural influences affecting help-seeking attitudes among Latino adults.

### **Cultural Variables**

In the past 20 years, there has been an increasing effort in advocating the importance of culture in mental health assessment and treatment with individuals of ethnically diverse backgrounds (Aguilar-Gaxiola, Kramer, Resendez, & Magaña, 2008). For example, changes to the Diagnostic and Statistical Manual of Mental Health Disorders (4<sup>th</sup> ed., text rev; DSM-IV-TR; American Psychiatric Association, 2000) included an appendix that contains a glossary of cultural-bound syndromes and provides an outline for cultural formulation (i.e., incorporating cultural issues in diagnosis) (DSM-IV-TR, 2000). In 2001, the Surgeon General released a supplementary report on Mental

Health highlighting the critical differences that one needs to consider when treating and diagnosing individuals of different races and ethnicity. The Surgeon General Report focused attention on the importance of culture and its role in influencing various facets of mental health; including but not limited to: beliefs about mental illness, willingness to seek treatment, coping strategies, support systems, and stigma. Finally, in 2003, the APA Task Force released a report on the implementations of the multicultural guidelines; this report provides detailed recommendations on developing and maintaining multicultural competence (American Psychological Association, 2008).

Cultural beliefs and values are significant constructs that contribute to the understanding of the etiology of mental illness and influence the way ethnic minorities react to mental illness (Aguilar et al., 2008). Therefore, exploring which specific cultural constructs and values contribute to the onset of psychological problems or serve as a protective factors among Latinos is important for not only mental health prevention but also to culturally effective treatment planning.

### **Familismo**

One of the most extensively studied cultural values within the Latino culture is *Familismo* (Cortes, 1995; Marin & Marin, 1991). This value not only stresses the importance of family, but also implies that one's individual needs will be sacrificed for the needs of their family. This is consistent with the literature on the cultural trait of collectivism (or allocentrism) that places the needs of the in-group over individual needs (Gaines, Marelich, Bledsoe, & Steers, 1997; Hofstede, 1980; Marin & Marin, 1991). Though this cultural value is particularly salient among Mexican Americans, (Alvarez & Bean, 1976; Knight et al., 2010) it is also recognized among other Latino ethnic groups

such as Puerto Ricans (Cortez, 1995; Rodriguez & Kosloski, 1998), South Americans (Cohen, 1979), and Cuban Americans (Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987).

*Familismo* is a multidimensional and complex construct. Though previous studies have measured this cultural value unidimensionally (Gaines et al. 1997), several researchers have argued that the value of *familismo* represents two distinct components: attitudinal and behavioral (Keefe, Padilla, & Carlos, 1979; Marin & Marin, 1991; Sabogal et al., 1987). The attitudinal aspects of *familismo* encompass the beliefs and feelings that Latinos share regarding their family and their feelings of loyalty, solidarity and reciprocity; whereas, the behavioral aspects of *familismo* measure the individual's actions associated with these feelings (Marin, 1993; Sabogal et al., 1987; Valenzuela & Dornbusch, 1994). Sabogal et al. (1987) argue that the consequence of not distinguishing these dimensions could result in counterintuitive findings. He goes on to suggest that we can have both strong and weak attitudinal and behavioral *familismo*, which over the course of a lifetime can change depending on personal or environmental factors.

Within the literature on familismo, the three most frequently studied dimensions or factors representing the attitudinal components of *familismo* are *family support*, *family obligation* and *family as referent* (Cortez, 1995; Marin, 1993; Rodriguez & Kosloski, 1998; Sabogal et al., 1987). Family support refers to the perceived support from family members and desire to maintain close relationships; family obligation refers to the perceived obligation to provide material and tangible care to family members; family as referent refers to making decisions with the family in mind (Armenta, Knight, Carlo, & Jacobson, 2011; Knight et al., 2010; Marin & Marin, 1991). Although many other factors

of familismo have also been explored in past studies (e.g., family cohesion, family conflict, family interconnectedness, and family honor) (Mulvaney-Day, Alegria, & Sribney, 2006; Rodriguez, Mira, Paez, & Myers, 2007; Steidel & Contreras, 2003), this current study will focus on the values of family support, family obligation, and family as referent.

**Acculturation and familismo.** As previously discussed, acculturation is used to describe the process of cultural change that occurs when contact is made between two different cultures (Berry, 2003). Given that change is assumed to occur with increased exposure to the host culture, it has been hypothesized that values of *familismo* should decrease as Latinos become more acculturated to the mainstream culture (Sabogal et al., 1987; Cuellar, Arnold, & Maldonado, 1995). Unfortunately, the relationship between *familismo* and acculturation and their effect on mental health remains unclear, as findings have been mixed and inconsistent throughout the empirical literature. For example, among Mexican, Cuban, and Central Americans, Sabogal et al. (1987) found that Latinos scored significantly higher on all dimensions of *familismo* compared to White non-Latinos. Further, the participant scores on family obligation and family as referent were inversely related to acculturation while family support remained unchanged. Brooks, Stuewig, and Lecroy (1998), in a study of Mexican Americans, found that as family members become more acculturated, certain aspects of *familismo* such as family involvement also become less significant. Similarly, Barrett, Joe, and Simpson (1991) found that high acculturation was associated with less family support. These findings suggest that increased levels of acculturation can lessen the effects of strong familial ties and therefore may reduce their protective nature against psychological distress (Hovey &

King, 1996). Although, these findings support the idea that *familismo* decreases as Latinos become more acculturated to the U.S culture, they are not consistent with regard to which aspects of *familismo* are most affected by acculturation.

### **Mainstream Values**

There is a great deal of literature examining the influences of traditional Latino cultural values, but few studies have investigated the relationship between Latino behaviors and attitudes with mainstream American values. In part, this is understandable given that many mainstream values are consistent with the beliefs and attitudes of individualism, which places the needs of the individual over the needs of one's in-group (Hofstede, 1980). Mainstream values such as competition, independence, personal achievement, self-reliance, and materialism all reflect values inherent to American culture that differ drastically from the interdependent, cooperative, cohesive, and collectivistic values of Latino culture (Marin & Marin 1991). In particular, the mainstream values of independence, self-reliance, and competition, clash with the core values of family cohesiveness, cooperation, and reciprocity, which are central to the attitudinal beliefs of *familismo*. Therefore, adapting to both of these value systems could leave Latinos feeling confused, frustrated, and at odds with themselves. It is plausible then, that this internal struggle of balancing these incongruent values may lead to symptoms of depression.

The mainstream U.S. values that will be examined in this study are *Independence/Self-Reliance*, which refers to the importance of self-sufficiency, and *Competition/Personal Achievement*, which refers to the importance of separating one's self through rivalry and personal accomplishments (Knight et al., 2010). This study is

distinct, in that the contribution of U.S mainstream values on mental health outcomes and help-seeking behaviors has not been extensively explored in the Latino research. Given the literature, that has suggested that increased exposure to the U.S. culture is related to the deterioration in mental health among Latinos. It seems imperative to explore what aspects of U.S. mainstream values contribute to those negative mental health outcomes.

### **Depression**

As it was previously mentioned, recent epidemiological literature has shown that Latinos overall experience depression at a comparable or lower rate as non-Latino Whites. However, when compared to Latino immigrants, U.S. born Latinos reported higher rates of depression, anxiety, and substance abuse disorders (Grant et al., 2004; Grant, Stinson; Vega, Alderete, Kolody, & Aguilar-Gaxiola, 1998) as well as higher rates of general psychiatric disorders (Alegria et al., 2008). Earlier researchers predicted that the risk of mental health issues would decrease as Latino immigrants adjusted to U.S. culture; however, current findings suggest the opposite. Findings from studies such as the National Latino and Asian American Study (NLAAS) on the prevalence of psychiatric disorders, suggest that the mental health of Latinos worsens with the increase of years lived in the U.S. (Alegria, et al., 2008; Cook et al., 2009; Vega, Kolody, Aguilar-Gaxiola, & Catalano, 1998). Vega and colleagues (1998) found that Latinos who were born in the U.S. or lived in the U.S. for 13 years or more had higher rates of any mood disorder, substance disorder, or other mental health disorder compared to immigrant Latinos who had resided in the U.S. for less than 13 years. Therefore, it has been hypothesized that nativity status and the number of years that Latinos are exposed to the

U.S culture plays a critical role in the decline of mental health (Alegria et al., 2008; Cook et al., 2009; Vega et al., 1998).

**Familismo and depression.** Studies that have examined the relationship between *familismo* and mental health among Latino adults have yielded inconsistent findings (Mulvaney-Day, Alegria, & Sribney, 2006). Several studies have suggested a positive relationship between *familismo* and mental health outcomes, thus implying that this cultural value may contribute to better mental health outcomes (Contreras, Lopez, Rivera, Raymond-Smith, & Rothstein, 1999; Mindel, 1980; Ramirez & Arce, 1981, Sabogal et al. 1987; Suarez-Orozco & Suarez-Orozco, 1995) while others have suggested a negative relationship (Mirande, 1980).

It has generally been believed that Latinos with stronger placement on *familismo* are likely to have greater positive support systems and higher emotional resilience compared to Latinos who place lower importance on these values (Mendelson et al., 2008). Therefore, *familismo* has been conceptualized as a protective factor against psychological distress like depression. This relationship, however, appears to be contingent on the acculturation orientation of the individual. For example, Latinos more acculturated to the mainstream culture may not endorse a strong value in *familismo*; therefore, it is possible that this value would lose its ability as a protective factor. While this explanation seems plausible, what is less understood is the possibility of having one dimension of *familismo* serve as a protective factor, while at the same time another dimension of this value places the individual at risk.

The literature suggests that Latinos derive closeness and support from family, but there may also be circumstances when family expectations may become a source of stress

rather than support. For example, financial strain may make it difficult for one member to help another family member financially. This situation would be particularly distressing for individuals who place high value on family obligation. In contrast, if close family relationships are not personally desirable, the expectations associated with *familismo* may be an unwelcome burden. In these situations, cultural expectations that emphasize *familismo* may actually have greater costs for these Latinos, prompting higher levels of distress.

In this study, we have focused on the possible benefits of familismo but are mindful that there may also be circumstances in which familismo is associated with greater stress or compromised health. Therefore, the current study will examine the influence of the varying dimensions of familismo separately, as we expect that each may have a different association with depression.

### **Help-Seeking Attitudes**

Recent studies on Latino mental health have highlighted the disparities in mental health service use among Latinos (U.S. Department of Health and Human Services [DHHS], 2001). Vega and colleagues (1998) found that only 8.8% of Latinos with a diagnosed mental disorder reported using a mental health care provider. Additionally, studies have found that rates of mental health service use among Latino immigrants were even lower than U.S. born Latinos suggesting that 1 in 20 Latino immigrants contact a mental healthcare provider and less than 1 in 10 seek services from a general practitioner (U.S. DHHS, 2001).

Several factors have been identified as barriers to seeking mental health treatment. Some studies have highlighted the lack of bicultural or culturally competent therapy and

therapist, while others have highlighted factors such as language proficiency, stigma, transportation, finances, immigration issues, cultural beliefs, and childcare (Alegria, Mulvaney-Day, Woo, Torres, Gao, & Oddo, 2007; Ramos-Sanchez & Atkinson, 2009). Recent reports on language use among Latinos indicates that about 44% of U.S. born Latinos (72% foreign born Latinos) speak English “less than very well” (Pew Hispanic Center, 2008); therefore, the availability of bilingual therapists is critical for Latinos who may prefer to speak Spanish. Unfortunately, reports by Williams and Kohout (1999) indicated that of 596 licensed psychologists who are also members of the American Psychological Association, only 1% of the sample identified themselves as Latino. In another study by the Center for Mental Health Services (Williams & Kohout, 1999), there were only 20 Latino mental health professionals for every 100,000 Latinos in the U.S. This paucity of Latino and bilingual mental health providers only makes access to mental health services harder for Latinos. Furthermore, the rise of new immigration laws that restrict accessibility to services for immigrants are likely to contribute to these help-seeking behaviors/trends. Although there are many different barriers to mental health service use for Latinos, it remains unclear how much help-seeking attitudes and utilization of services is related to structural, socioeconomic, or cultural factors.

**Cultural values and help-seeking.** Few studies have examined the relationship between Latino culture values and help-seeking behaviors. Ramos-Sanchez and Alkinson (2009) in a study of Mexican American community college students examined the relationship between acculturation, cultural values, gender, and help-seeking behaviors. Based on the cultural barrier theory of Leong et al. (1995), which assumes that certain characteristics of the Latino culture (such as traditional cultural values and

acculturation) prevent Latinos from seeking mental health services, the authors hypothesized that cultural factors such as acculturation and traditional Mexican values would influence the likelihood that Latinos would seek mental health services. An interesting finding was that Mexican Americans with a higher Mexican orientation and a lower generation level were more likely to seek mental health services than Mexican Americans who were more acculturated and from higher generations. This finding contradicted their cultural barrier theory since the theory posits that less acculturated Mexican Americans would be less likely to seek mental health services in comparison to more acculturated Mexican Americans. Gender differences were also examined; their findings revealed that women were more likely than men to seek mental health services (Cabassa, 2007; Vega et al., 2004; Sanchez & Atkinson, 1983).

**Mainstream values and help-seeking.** Few studies have examined how Latino cultural values affect help-seeking attitudes towards psychological services (Leaf, Livingston-Bruce, Tischler, & Holzer, 1987; Leaf & Livingston-Bruce, 1987). Moreover, even fewer studies have explored the influence of mainstream U.S. values on help-seeking behavior among Latinos. One of the few mainstream values that has been studied in the literature on Latinos is self-reliance, which refers to the preference of relying on one self. In the context of help-seeking, this value refers to dealing with one's mental health problems on one's own. Ortega and Alegria (2002) examined the relationship between self-reliance and service utilization outcomes among a group of low-income Puerto Ricans. The authors found that during their first wave of data collection, Latinos with positive self-reliance were about 40% less likely to use mental health services. However, after the second period of data collection they found that as

self-reliance decreased, service use increased. These findings not only demonstrated a significant relationship between self-reliance and service use, but also illustrated that the relationship changed depending on the strength of this mainstream value. Thus, suggesting that the mainstream value of self-reliance is a strong predictor of mental health service use among Puerto Ricans.

### **Study Objectives**

The purpose of this study was to explore the cultural values most important in predicting depressive symptomatology and help-seeking attitudes among Latino adults. Previous research has suggested that *familismo* is associated with both positive and negative mental health outcomes among Latinos. Given that the value of *familismo* is multidimensional, the dimensions that were investigated include: family support, family referent, and family obligation. It was predicted that each of these dimensions of *familismo* would vary in their relationship with depression and help-seeking attitudes. As it has previously been mentioned, very few studies have investigated the relationship between mainstream U.S. values with depression or help-seeking attitudes among Latinos. Therefore, the mainstream values that were investigated include; independence/ self-reliance and competition/ personal achievement. The second aim of this study was to examine the ability of nativity status to moderate the relationships between the values of *familismo* and depression as well as the values of *familismo* and help-seeking attitudes.

Four hypotheses were generated to address the first aim of the present study while two hypotheses were generated to address the second aim of the study. First, it was hypothesized that Latino values of *familismo* (family support, family obligations, and family referent) would account for the most variance in predicting depressive symptoms

after controlling for socio-demographic variables, such as acculturation and mainstream cultural values (independence / self-reliance and competition/ personal achievement).

Hypothesis 2, predicted that of the cultural values of *familismo*, family obligation would be the strongest predictor of depressive symptoms among Latinos.

Hypothesis 3, stated that the mainstream cultural values (independence/ self-reliance and competition/ personal achievement) would account for the most variance in predicting help-seeking attitudes after controlling for socio-demographic characteristics, acculturation, and cultural values of *familismo*. Furthermore, hypothesis 4 predicted that of the mainstream cultural values, the value of independence/ self-reliance would be the strongest predictor of help-seeking attitudes.

The second aim of this study was to examine the ability of nativity status to moderate the relationship between family values and depression symptoms, as well as family values and help-seeking attitudes. Hypothesis 5, predicted that nativity status (i.e., U.S. born vs. foreign born) would moderate the relationship between the three dimensions of *familismo* and depression. These analyses are explorative; therefore, no specific predictions were made as to which relationship would be strengthened by nativity status. Hypothesis 6, also predicted that nativity would moderate the relationship between the three dimensions of *familismo* and help-seeking attitudes. Similarly, no specific predictions were made as to which relationship would be strengthened by nativity status.

## Methods

### Data Collection

Participants included in this study were Latino adults 18 years of age or older, who self-identified as Latino, Hispanic or of Spanish origin (i.e., Mexican, Puerto Rican, South American, Cuban, etc.) and spoke English or Spanish. Participants were recruited at a community festival in the Midwest region in the United States, and were asked to complete a packet of questionnaires that included a demographic form, the CES-D, the ATSPPH-SF, the Brief ARSMA-II, the MACVS, as well as other measures that were used for a different study. All questionnaires were made available in either English or Spanish in order to provide participants the opportunity to complete the questions in their native language. Questionnaires were also counterbalanced in order to prevent order effects. On average, participants took approximately 35 minutes to complete the packet. Upon completion, participants were compensated with \$10 cash for their participation.

### Measures

**Demographic questionnaire.** Participants completed a questionnaire that included the following personal information: date of birth, gender, marital status, number of adults and children in the household, cultural heritage (Mexican, Mexican American, Chicano, Puerto Rican, Cuban, Central or South American, and other), nativity status (U.S. Born or born in other country), years lived in the U.S., generation level (asked to identify who the first member of family to immigrate to the U.S.), annual family and personal income, student status (current or not current), total years of education attended, and occupation.

**Acculturation.** The Acculturation Rating Scale for Mexican Americans-II (ARSMA-II; Cuellar et al., 1995) is a 12-item self-report measure that uses an orthogonal, multidimensional approach to assess the acculturation process by measuring cultural orientation toward Mexican culture and Anglo culture independently. This measure assesses: language use and preference, ethnic identity and classification, cultural heritage and ethnic behaviors. Items are rated on a five point Likert scale ranging from one (not at all) to five (extremely often or almost always). The ARSMA-II has two sub-scales: Anglo Orientation Sub-scale (AOS) and Latino Orientation Sub-scale (LOS). Cuellar et al., (1995) reported split-half reliability of .77 for the AOS and .84 for LOS and coefficient alphas of .83 for the AOS and .88 for the LOS. In the present study, this scale was used in English and Spanish; reliabilities were .87 for the LOS subscale and .83 for the AOS subscale. Mean scores were calculated for each sub-scale.

**Cultural values.** The Mexican American Cultural Values Scale for Adolescents and Adults (MACVS; Knight et al., 2010) is a 50-item self-report measure designed to assess dual cultural adaptations and culturally related values in Mexican American adolescents and adults. The scale measures six values associated with Mexican American beliefs and cultural traditions; these sub-scales are family support, family obligation, family referent, respect, religion, and traditional gender roles. These sub-scales are combined into an overall Mexican American values scale. The scale also measures three mainstream American values: material success, independence /self-reliance, and competition / personal achievement that are combined into an overall mainstream values scale. Items are measured on a 5-point Likert scale ranging from one (not at all) to five (completely). The MACVS has shown good psychometric properties;

Cronbach's alphas are .79 for both mothers and fathers for the composite of the *familismo* sub-scales and .81 and .82 for mothers and fathers, respectively, on the overall mainstream values scale. The measure has also demonstrated adequate construct validity, as it is related to several similar constructs, such as ethnic pride, ethnic socialization, and country of origin (Knight et al., 2010). The current study used the following sub-scales: family support (which measures support and emotional closeness), family obligation, family as referent, independence / self-reliance, competition / personal achievement. In the present study, Cronbach's alpha for each of these scales was as follows: .89 (family support), .79 (family obligation), .83 (family referent), .79 (competition), and .70 (Independent).

**Help-Seeking.** The Attitudes Toward Seeking Professional Psychological Help Short Form (ATSPPH-SF; Fisher & Farina, 1995) is a 10-item measure used to assess attitudes toward seeking help. This uni-dimensional scale was developed from the original 29-item multi-dimensional measure (Fischer & Turner, 1970). The original ATSPPH was designed to measure four dimensions of attitudes that are important to seeking professional psychological help: stigma tolerance, recognition of need for professional help, interpersonal openness, and confidence in mental health professionals. The items of the ATSSPH-SF are measured on a 4-point Likert scale (0 –disagree; 1- somewhat disagree; 2- somewhat agree; 3 agree). Five of the items reflected “anti-help-seeking attitudes and therefore were reverse scored, producing a score range of 0-30. Higher scores indicate positive attitudes. The ATSPPH-SF has reported good reliability (coefficient alpha of .84). Fischer & Turner reported good construct validity for this scale by comparing individual scores on this measure to scores on independent measures

of help-seeking attitudes ( $r = .87$ ). Criterion validity has been established in previous studies with college students as well as Asian American samples, with the scale predicting individuals' willingness to seek psychological services (Elhai, Schweinle, & Anderson, 2008; Elhai & Simons, 2007; Kim & Omizo, 2003). Internal consistencies have been reported at .67, when using the ATSPPH-SF with Latino immigrant populations (Ramos-Sanchez & Atkinson, 2009). Cronbach's alpha for this data set was .64.

**Depression.** The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) is a 20-item self-report measure designed to measure depressive symptomatology. Factor analyses have indicated four factors in the CES-D: depressed, positive affect, somatic symptoms retarded activity, and interpersonal behavior. Item responses are based on a 4-point Likert scale ranging from one (rarely or none of the time/ Less than one Day) to four (most or all of the time/ 5-7 days). CES-D scores range from 0-60 with high scores indicating more symptoms, weighed by frequency of occurrence during the past week. Items were summed and a cutoff point of 16 or greater was used to identify participants with depressive symptoms. This has been a commonly used cutoff score with Latino populations (Cabassa, 2007; Posner, Stewart, Martin, & Perez-Stable, 2001). An internal consistency coefficient has been reported at .85 in the general population and has shown good psychometric properties when used with Latino populations (Grzywacz et al., 2006; Cabassa, 2007; Torres, 2010). In the present study, Cronbach's alpha was .89.

## Results

### Preliminary Analyses

Initially, 210 participants completed the packet of questionnaires; however, 17 of these participants were removed from the data analysis due to significant missing data and inconsistent response patterns. Two cases were additionally deleted with missing data on more than 5% of the outcome variables. The final number of participants used for analyses was 191.

All analyses were conducted in SPSS 19.0 and SPSS 20.0. The data were screened to ensure that the assumptions of the multivariate analyses were met. Initial screening revealed that several of the independent variables were negatively skewed. Data transformations, as suggested by Tabachnick and Fidell (2007), were performed in order to approximate normality for the following variables: Anglo orientation scale (AOS), family obligation, and family as referent. Given the severe skewness of the family support variable, an inverse transformation was applied which substantially improved skewness. The remaining skewed variables were only moderately skewed; therefore, log transformations were used. As suggested by Tabachnick and Fidell (2007) each variable was “reflected” prior to transformation, so that the distribution became positively skewed. By reflecting the variables the direction of the original scores was reversed so that when interpreting the data, high scores become low scores and vice-versa. In order to avoid having to reverse the direction of the interpretations, the variables were re-reflected following the transformation in order to return the distribution to its original form (Osborne, 2002; Tabachnick & Fidell, 2007).

## Participants

Demographic characteristics of the final 191 participants are presented in Table 1. Descriptive analysis revealed that most respondents were women (68%,  $n = 130$ ) and identified as Mexican/Mexican American or Chicano (91%,  $n = 173$ ). The average age for participants was 46 years old ( $SD = 17.71$ ) and the majority reported being married (52%,  $n = 99$ ). When examining education, participants on average reported at least graduating from high school or obtaining a GED (36%,  $n = 68$ ). Income earned also varied among participants, where nearly half of the participants (56%,  $n = 107$ ) reported earning \$35,000 or less a year. Further demographic information revealed that 63% ( $n = 121$ ) of the participants were born in the U.S and among those foreign born; the reported years lived in the U.S. was an average of 18 years ( $SD = 12.9$ ).

Table 1.

*Descriptive Statistics for Participating Demographic Characteristics (N = 191)*

Variable	N	%
Age	184	--
Gender		
Men	61	31.9
Women	130	68.1
Marital status		
Single	54	28.3
Married	99	51.8
Divorced	4	2.1
Separated	16	8.4
Widowed	5	2.6
Living with significant Other	13	6.28

Ethnicity		
Mexican, Mexican American, Chicano	173	91.53
Puerto Rican	8	4.2
Cuban	1	.5
South American	3	1.6
Other	4	2.1
Nativity status		
US-born	121	63.4
Foreign-born	69	36.1
Years lived in the US (Foreign-born)	64	--
Household income		
Less than \$10,000	21	11
\$10,000-\$20,000	37	19.4
\$20,000-\$35,000	49	25.7
\$35,000-\$50,000	37	19.4
\$50,000-\$75,000	26	13.6
Over \$ 75,000	11	5.8
Education level		
Less than 12 years	47	25.7
High School diploma	68	35.6
Some College	40	21.8
Bachelors degree or higher	28	15.3

### Descriptive Statistics

Means and standard deviations for the main study variables are illustrated in Table 2. Latino participants in the sample reported moderate levels of orientation to both Anglo culture and Latino culture. Additionally, adherence to attitudinal and behavioral dimensions of *familismo* was also highly endorsed by participants, with family support being the highest reported cultural value. Similarly, mainstream values of independence/ self-reliance, and competition / personal achievement, were also moderately reported. These means are similar to those reported by Knight et al., (2010), where Latino adults

both U.S. and born in Mexico, reported ( $M = 4.61$ ,  $SD = .37$ ) for Family Support, ( $M = 4.19$ ,  $SD = .52$ ) for Family Obligation, ( $M = 4.19$ ,  $SD = .52$ ) for Family Referent, ( $M = 3.71$ ,  $SD = .63$ ) for Independence/self reliance and ( $M = 3.68$ ,  $SD = .79$ ) for Competition/personal achievement. This suggests that participants placed similar importance on American mainstream values and Latino values of family.

As shown in Table 2, the average depression score was slightly below a commonly used cutoff score of 16 that has been used to differentiate clinical and non-clinical descriptions of depression. This suggests that participants in this sample were experiencing moderate levels of depressive symptoms. In fact, 47.6% of participants ( $n = 91$ ) had scores at or above the clinical range for depression. Finally, participants reported favorable attitudes to seeking mental health professionals, suggesting that participants in the sample may not uphold the negative stigma that is associated with seeking mental health services, which has been prevalent in Latino communities (Kouyoumdijan et al., 2003)

Table 2

Means, Standard Deviations, and Correlations among Main Study Variables ( $N = 191$ )

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1. CES-D	-	-0.08	-0.13	0.05	-0.17*	-0.04	-0.03	-0.06	-0.01	-0.24**	-0.22**	-0.25**	-0.34**	0.01	-0.13	
2. ATSPPH-SF		-	-0.12	0.04	0.03	0.00	0.02	-0.09	0.02	0.1	0.02	0.04	-0.07	0.73**	0.66**	
3. ARSMA-II AOS			-	-0.25**	-0.11	-0.05	-0.14	-0.06	-0.16*	0.09	0.44**	0.31**	0.28**	-0.17*	0.00	
4. ARSMA-II LOS				-	0.14*	0.15*	0.18*	0.13	0.19*	-0.07	-0.30**	-0.19**	-0.15*	0.07	-0.01	
5. MACVS (Fam. Support)					-	0.63**	0.65**	0.42**	0.40**	-0.03	-0.09	-0.08	0.04	0.11	-0.08	
6. MACVS (Fam. Referent)						-	0.77**	0.49**	0.65**	-0.02	-0.17*	-0.29**	-0.07	0.19**	-0.21**	
7. MACVS (Fam. Obligation)							-	0.44**	0.58**	-0.15*	-0.29**	-0.24**	-0.11	0.13	-0.11	
8. MACVS (Independence)								-	0.59**	0.04	-0.07	-0.11	-0.14	0.12	-0.27**	
9. MACVS (Competition)									-	-0.02	-0.23**	-0.25**	-0.12	0.14	-0.12	
10. Age										-	0.80**	-0.04	0.14	0.14	0.00	
11. Years lived in US											-	0.16*	0.27**	-0.01	0.04	
12. Education												-	0.29**	-0.01	0.07	
13. Annual Income													-	-0.07	0.00	
14. Positive Help-seeking														-	-0.02	
15. Negative Help-seeking															-	
<i>M</i>	15.53	17.99	3.76	3.76	3.56	4.26	3.78	3.83	3.7	3.46	46.02	18.28	12.25	--	9.41	3.75
<i>SD</i>	5.02	3.76	0.97	1.07	0.79	0.88	0.84	0.79	0.98	0.98	17.71	12.96	3.35	--	8.58	3.41

Note. ARSMA-II = Acculturation Rating Scale for Mexican Americans; AOS = Anglo orientation Scale; LOS = Latino Orientation Scale; ATSPPH-SF = Attitudes Toward Seeking Professional Psychological Help-Short Form; CES-D = Center for Epidemiology Studies—Depression Scale; MACVS = Mexican American Cultural Values Scale

\* Spearman correlations were calculated for Annual Income.

\*\*  $p < .05$ , \*\*\*  $p < .01$

**Differences by gender.** Independent samples *t* tests were conducted to assess for differences in age, years lived in the U.S., education, Latino values of *familismo*, acculturation and mainstream values by gender (see Table 3). There was a significant difference in attitudes towards seeking psychological help,  $t(189) = -2.69, p < .01$ ; such that women reported higher favorable attitudes towards help-seeking than men. Women also reported higher values of family support ( $t(189) = -3.31, p < .001$ ). Levene's test indicated unequal variances so degrees of freedom were adjusted from 189 to 88. Additionally women reported higher values of independence/self-reliance ( $t(189) = -2.29, p < .05$ ). No other significant differences between genders were observed, indicating that both men and women were similar in age, years lived in the U.S., education level, acculturation level, and reported similar depressive symptoms.

**Differences by nativity status.** Independent samples *t* tests were conducted to assess for difference between nativity status in age, years lived in the U.S., education, Latino values of *familismo*, acculturation, and mainstream values (see Table 3). Differences in education were observed among U.S born Latinos and foreign-born Latinos, where ( $t(180) = -4.52, p < .001$ ). Levene's test indicated unequal variances ( $F = 9.37, p < .001$ ), so degrees of freedom were adjusted from 180 to 107.

There was no significant difference in depression symptoms between U.S. born and foreign-born participants nor was a difference found in attitudes towards help-seeking. As expected, U.S. born participants reported higher Anglo orientation scores ( $t(188) = -9.16, p < .001$ ), Levene's test indicated unequal variances so degrees of freedom were adjusted from 188 to 97; whereas foreign-born participants reported higher Latino

orientation scores ( $t(188) = 7.83, p < .001$ )] Levene's test indicated unequal variances so degrees of freedom were adjusted from 188 to 183.

Differences in cultural values of *familismo* revealed that foreign-born Latino participants reported higher scores on family as referent ( $t(188) = 2.94, p < .01$ ) and on family obligation ( $t(188) = 3.47, p < .001$ ) compared to U.S. born Latinos. However, scores on family support did not differ between groups. Foreign-born Latinos reported higher scores on the mainstream values of independence and self-reliance ( $t(188) = 2.19, p < .05$ ) and competition and personal achievement ( $t(188) = 4.31, p < .001$ ).

Table 3

*Means and (Standard deviations) of Main Study Variables by Gender and Nativity Status*

Variable	Gender		Nativity Status	
	Men	Women	Foreign-Born	U.S. Born
Age	47.98 (17.61)	44.81 (18.02)	42.81 (13.54)	47.22 (19.63)
Years lived in U.S.	39.43 (23.11)	36.48 (21.79)	18.89 (13.04)	46.81 (19.83)**
Education	12.00 (3.72)	12.52 (3.15)	10.82 (3.63)	13.14 (2.89)**
CES-D	16.50 (11.48)	15.19 (9.84)	16.88 (9.36)	14.93 (10.80)
ATSPPH-SF	16.73 (4.76)	18.47 (5.09)*	18.63 (5.37)	17.58 (4.86)
ARSMA-II AOS	3.69 (0.91)	3.81 (0.98)	2.97 (1.03)	4.19 (0.59)**
ARSMA-II LOS	3.33 (0.95)	3.60 (1.12)	4.23 (0.69)	3.16 (1.06)**
MACVS (Fam. Support)	3.96 (0.97)	4.40 (0.66)**	4.44 (0.71)	4.18 (0.83)*
MACVS (Fam. Referent)	3.66 (0.92)	3.80 (0.88)	4.05 (0.86)	3.61 (.088)**

MACVS (Fam. Obligation)	3.67 (0.92)	3.87 (0.81)	4.12 (0.79)	3.65 (0.84)**
MACVS (Independence)	3.54 (0.88)	3.78 (0.73)	3.90 (0.82)	3.60 (0.76)*
MACVS (Competition)	3.25 (1.09)	3.51 (0.94)	3.87 (0.93)	3.21 (0.96)**
Positive Help-seeking	8.65 (3.22)	9.87 (3.82)*	10.49 (3.57)	8.99 (3.66)*
Negative Help-seeking	8.08 (3.01)	8.59 (3.67)	8.14 (3.91)	8.59 (3.25)

*Note.* ARSMA-II = Acculturation Rating Scale for Mexican Americans; AOS = Anglo Orientation Scale; LOS = Latino Orientation Scale; Center for Epidemiology Studies = Depression Scale; MACVS = Mexican American Cultural Values Scale

\*  $p < .05$ , \*\*  $p < .01$  – Independent Samples T-Test

### Bivariate Correlations among Main Variables

Pearson's  $r$  correlations were calculated to assess the relationship among all main study variables (see Table 2). The Anglo orientation scale of acculturation was positively correlated with years lived in the U.S, suggesting that Anglo orientation is related to an increase of years lived in the U.S. To further examine this, the data were split by nativity status. Correlations of study variables indicated that among foreign-born Latinos, Anglo orientation was positively related to years lived in the U.S. Furthermore, Anglo orientation was also positively correlated with income and education whereas Latino orientation was negatively correlated with years lived in the U.S., income, and education. Overall, acculturation (LOS and AOS) was not related to the cultural values of *familismo*; however, Latino orientation was positively correlated to the mainstream value of competition and personal achievement.

Attitudes towards help-seeking (ATSPPH-SF), were not significantly related to any of the main study variables or demographic variables. Depressive symptoms (CESD

scores) were related to age ( $r = -.24, p < .001$ ) such that reported symptoms of depression decreased with age. In addition, depressive symptoms were also related to years lived in the U.S., education, and income such that lower levels of education, lower income, and fewer years living in the U.S. were associated with increased symptoms of depression. Depressive symptoms were also associated with the cultural value of family support, where stronger family support was related to lower depressive symptoms.

### **Predictors of Depression**

In order to assess whether the Latino values of *familismo* would predict depressive symptoms among participants, after controlling for the influence of socio-demographic variables (age, years lived in the U.S., education, income, and gender), acculturation, and mainstream values of independence/self reliance and competition/personal achievement, a hierarchical regression was performed (see table 4). Multiple regression assumptions were calculated to ensure that there were no violations of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. In step one, all of the socio-demographic variables were entered, explaining 18.2% of the variance in depression,  $F(5, 156) = 6.95, p < .001$  (adjusted  $R^2 = .16$ ). In step two, acculturation variables (AOS and LOS) were added; both socio-demographic variable and acculturation accounted for 18.3% of the total variance in depression,  $F(7, 154) = 4.93, p < .001$  (adjusted  $R^2 = .15$ ). However, the addition of acculturation did not contribute a significant amount of variance in predicting depression,  $R$  change = .001 ( $F$  change = .09,  $p = .92$ ). In the third step, both mainstream values were added to the model, this addition as a whole accounted for 18.9% of the total variance in depression,  $F(9,$

152) = 3.95,  $p < .001$  (adjusted  $R^2 = .14$ ). Again, the change in variance due to this addition, was not significant at Step 3 ( $F$  change = .60,  $p = .55$ ). In the final step, all three *familismo* variables were added to the model. The total variance explained by the model was 20.6%,  $F(12, 149) = 3.23$ ,  $p < .001$ . Unfortunately, the addition of the three *familismo* variables did not contribute a significant amount of variance ( $F$  change = 1.05,  $p = .37$ ) as predicted; however, the equation remained significant.

In the final model, with all predictors in the equation, two of the demographic variables were significant contributors of depression: education ( $\beta = -.21$ ,  $p < .05$ ), and annual income ( $\beta = -.28$ ,  $p < .01$ ). Each was negatively associated with depressive symptoms, such that lower education and lower income was associated with higher symptoms of depression. Because the cultural values of *familismo* and in particular, family obligation did not predict depressive symptoms beyond that already accounted by demographics, acculturation and mainstream values, our hypothesis were not supported.

Table 4

*Hierarchical Regression Analysis for Variables Predicting Depression (N = 162)*

Variable	$R^2$	$B$	$SE B$	$\beta$
Step 1				
Age	0.18	-0.17	0.07	-0.30*
Years Lived in U.S.		0.08	0.06	0.17
Education		-0.60	0.25	-0.19*
Income		-2.21	0.59	-0.30**
Gender		-2.40	1.65	-0.11
Step 2				
Age	0.18	-0.16	0.09	-0.30
Years Lived in U.S.		0.07	0.08	0.15
Education		-0.62	0.25	-0.20*
Income		-2.21	0.59	-0.30**
Gender		-2.30	1.69	-0.10

AOS		0.26	5.49	-0.01
MOS		-0.33	0.79	-0.05
<hr/>				
Step 3				
Age	0.19	-0.15	0.09	-0.25
Years Lived in U.S.		0.05	0.08	0.11
Education		-0.64	0.26	-0.21*
Income		-2.26	0.60	-0.31**
Gender		-2.01	1.72	-0.09
AOS		0.93	5.54	0.02
MOS		-0.27	0.79	-0.03
Independence		-0.99	1.22	-0.07
Competition		-0.18	0.98	-0.02
<hr/>				
Step 4				
Age	0.21	-0.14	0.09	-0.24
Years Lived in U.S.		0.04	0.82	0.08
Education		-0.66	0.26	-0.21*
Income		-2.09	0.61	-0.28**
Gender		-1.29	1.77	-0.06
AOS		2.69	5.72	0.05
MOS		-0.13	0.80	-0.01
Independence		-0.51	1.26	-0.04
Competition		0.01	1.11	0.00
Family Support		-6.69	4.93	-0.15
Family Referent		2.54	7.70	0.04
Family Obligation		-2.26	7.77	-0.04

\*  $p < .05$ , \*\* $p < .01$

### Predictors of Help-Seeking Attitudes

In order to test Hypothesis 3 and 4, a hierarchical regression analyses was used to examine the ability of mainstream values to predict help-seeking attitudes towards psychological services, after controlling for the influence of socio-demographic variables (age, years lived in the U.S., education, income, and gender), acculturation, and cultural values of *familismo* (see table 5). Multiple regression assumptions were again calculated to ensure that no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity.

In step one, all of the socio-demographic variables were entered, explaining 6.9% of the variance in help-seeking attitudes, and was a significant overall model ( $F(5, 156) = 2.30, p < .05$  (adjusted  $R^2 = .04$ ). The acculturation variables (AOS and LOS) were added in step two; the addition of both acculturation variables did not cause a significant change in R squared ( $F$  change = .12,  $p = .89$ ). Both socio-demographic variables and acculturation together, accounted for 7.0% of the total variance in help-seeking attitudes,  $F(7, 154) = 1.66, p = .12$  (adjusted  $R^2 = .03$ ). In the third step, all three values of *familismo* were added to the model; the model as a whole only accounted for 7.9% of the variance in help-seeking attitudes,  $F(10, 151) = 1.30, p = .24$ . Finally, in the final step, both mainstream values were added to the model. The overall model was not significant ( $F(12, 149) = 1.70, p = .07$ ) and explained only 12.0% of the total variance in predicting help-seeking attitudes. The addition of the mainstream values explained an additional 4.1% of the variance in help-seeking attitudes, after controlling for all other variables in the model and this addition was significant ( $F$  change = 3.47,  $p < .03$ ).

In the final model, with all predictors in the equation, age ( $\beta = .39, p = .02$ ), gender ( $\beta = .17, p < .04$ ), and the value of independence/self-reliance ( $\beta = -.25, p < .01$ ) made significant contributions to predicting help-seeking attitudes after controlling for all other variables. Specifically, age and gender were positively associated with help-seeking attitudes, whereas independence was negatively associated. These findings suggest that older age, being female and a lower value placed on independence/ self-reliance are important for predicting positive help-seeking attitudes among Latino adults.

Table 5

*Hierarchical Regressions Assessing Predictors of Help-seeking Attitudes (N = 162)*

Variable	$R^2$	$B$	$SE B$	$\beta$
<b>Step 1</b>				
Age	0.07	0.11	0.04	0.35**
Years Lived in U.S.		-0.06	0.03	-0.27*
Education		0.12	0.13	0.08
Income		-0.09	0.31	-0.03
Gender		1.57	0.87	0.14
<b>Step 2</b>				
Age	0.07	0.09	0.05	0.32*
Years Lived in U.S.		-0.05	0.04	-0.22
Education		0.13	0.13	0.09
Income		-0.08	0.31	-0.02
Gender		1.59	0.89	0.14
AOS		-1.31	2.88	-0.05
MOS		0.07	0.42	0.04
<b>Step 3</b>				
Age	0.08	0.10	0.05	0.35*
Years Lived in U.S.		-0.06	0.04	-0.24
Education		0.11	0.14	0.07
Income		-0.03	0.32	-0.01
Gender		1.78	0.93	0.16
AOS		-0.36	3.03	-0.01
MOS		0.21	0.42	0.03
Family Support		-1.79	2.55	-0.08
Family Referent		-2.98	3.72	-0.11
Family Obligation		3.61	4.07	0.12
<b>Step 4</b>				
Age	0.12	0.11	0.05	0.38*
Years Lived in U.S.		-0.06	0.04	-0.26
Education		0.12	0.14	0.08
Income		-0.15	0.31	-0.04
Gender		1.93	0.92	0.17*
AOS		-0.33	2.96	-0.01
MOS		0.15	0.42	0.03
Family Support		-0.92	2.56	-0.04
Family Referent		-1.03	4.00	-0.03
Family Obligation		3.60	4.03	0.12
Independence		-1.66	0.65	-0.25*
Competition		0.21	0.57	0.04

\*  $p < .05$ , \*\* $p < .01$

### **Nativity status as a Moderator of Depression**

We were surprised to learn that none of the cultural values of *familismo* were significant when entered in the hierarchical regression predicting depressive symptoms. This finding is inconsistent with the literature that has suggested that cultural factors such as *familismo*, in particular family support, may serve as a protective factor against potential mental health disorders, like depression. According to Baron and Kenny (1986), a *moderator* is a variable that affects the direction and/or strength between two other variables. Therefore when there is a paradoxical relationship between an outcome and predictor variable, it is likely that a moderator (i.e., third variable) is present.

To further understand the relationship between *familismo* and depression, it was hypothesized that nativity status (foreign born vs. U.S. born) could be moderating the relationship between the cultural values of *familismo* and depressive symptoms. Therefore, three separate hierarchical regressions were used to test this prediction.

Based on the steps proposed by Frazier, Baron and Tix (2004) for moderation, each of the predictor variables that was measured on a continuous scale (e.g., family support, family obligation, and family as referent) were centered around the mean in order to reduce problems associated with multicollinearity among the variables. Next, code variables were created to represent the moderator variable of nativity status (i.e., since this variable was categorical). Afterwards, product terms were created to represent the interaction between the predictor and moderator. To create these interaction terms, each centered predictor variable was multiplied with the moderator variable. Therefore, three interaction terms were created: Nativity x Family Support; Nativity x Family Obligation; and Nativity x Family as Referent.

A hierarchical regression was conducted to examine nativity status as a moderator between family support and depression. At step one, family support (centered) was entered and generated an  $R^2 = .04$ ;  $F(1, 188) = 6.85$ ,  $p < .01$ . At step two, nativity status and family support explained 5.8% of the variance in depressive symptoms,  $F(2, 187) = 5.78$ ,  $p < .004$ , ( $F$  change = 4.57,  $p = .03$ ). In the last step, the interaction term of nativity status and family support was entered which as a whole accounted for 6.2% of the total variance in depressive symptoms,  $F(3, 186) = 4.09$ ,  $p < .01$ . However, the interaction term did not contribute a significant amount of variance to that already accounted for by family support and nativity status,  $F$  change = .75,  $p = .38$ . Although nativity status did not moderate the relationship between family support and depression, family support and nativity status both contributed significant variance in predicting depressive symptoms, such that high scores on family support ( $\beta = -.29$ ,  $p < .02$ ) and foreign born Latinos ( $\beta = -.16$ ,  $p < .03$ ) predicted lower depression scores.

In the second hierarchical regression, family referent (centered) was entered in the first step,  $R^2 = .00$ ,  $F(1, 188) = .13$ ,  $p = .72$ . In the second step, with the addition of nativity status,  $R^2 = .02$ ,  $F(2, 187) = 1.86$ ,  $p = .16$  ( $F$  change = 3.59,  $p = .06$ ). In the final step, the interaction of nativity status and family referent was entered. This addition did not contribute any additional variance to the model  $R^2$  change = .00. Therefore, as a whole, the final model explained 2% of the variance in depressive symptoms,  $F(3, 186) = 1.25$ ,  $p = .29$ . As a result, nativity status did not moderate the relationship between family referent and depression.

Finally, in examining whether the effects of depression and family obligation were moderated by nativity status, a hierarchical regression was conducted. In the first

step, family obligation (centered) was entered,  $R^2 = .00$ ,  $F(1, 187) = .07$ ,  $p = .80$ . At step two, with the addition of nativity status,  $R^2 = .02$ ,  $F(2, 187) = 1.83$ ,  $p = .16$ , ( $F$  change = 3.59,  $p = .06$ ). In the final step, the interaction of nativity status X family obligation was entered, indicating that the model as a whole accounted for 2.4% of the variance in depressive symptoms,  $F(3, 186) = 1.55$ ,  $p = .20$ . Results also indicated that the interaction term did not add any significant addition to the variance that was not already accounted for by nativity and family obligation,  $R$  square change = .01,  $F$  change = .99,  $p = .32$ . Therefore, the last hypothesis was not supported, as nativity status did not moderate the relationship between any of the values of *familismo* and depression.

### **Nativity status as a Moderator of Help-seeking Attitudes**

Three separate hierarchical regressions were conducted in order to examine the effects of help-seeking attitudes and values of *familismo* when moderated by nativity status. In the first hierarchical regression, nativity status was examined as a moderator between family support and help-seeking attitudes. Family support (centered) was entered in the first step,  $R^2 = .00$ ,  $F(1, 188) = .45$ ,  $p = .50$ . At step two, nativity status was added; both variables accounted for 1.8% of the variance ( $F(2, 187) = 1.76$ ,  $p = .17$ )  $F$  change = 3.06  $p = .08$ ). In the final step, the interaction term of nativity status X family support was added to the model, indicating that the addition of the interaction term did not contribute a significant amount of variance ( $F$  change = .25,  $p = .61$ ) to help-seeking attitudes,  $R^2 = .02$ ,  $F(3, 186) = 1.25$ ,  $p = .29$ . The addition of the interaction term did not significantly contribute additional variance to that already accounted for by family support and nativity status,  $R^2$  change = .00,  $F$  change (1, 186) = .25,  $p = .62$ . Therefore,

nativity status did not moderate the relationship between help-seeking attitudes and family support.

In the second hierarchical regression, family referent (centered) was entered in the first step, which explained 0% of the variance in help-seeking attitudes,  $F(1, 188) = .04$ ,  $p = .85$ . At step two, nativity status was added,  $R^2 = .02$ ,  $F(2, 187) = 1.83$ ,  $p = .16$ . This addition did not provide significant change in variance ( $F$  change = 3.61,  $p = .06$ ). In the last step, the interaction of nativity status and family referent was entered. The addition of the interaction term did not contribute any additional variance to the overall model,  $R^2$  change = .02,  $F(3, 186) = 1.47$ ,  $p = .23$ . Therefore, indicating that nativity status did not moderate the relationship between family referent and help-seeking.

Finally in examining whether nativity status would moderate the relationship between family obligation and help-seeking attitudes; family obligation (centered) was entered in the first step,  $R^2 = .00$ ,  $F(1, 188) = .11$ ,  $p = .74$ . At step two, nativity status was entered added,  $R^2 = .02$ ,  $F(2, 187) = 1.67$ ,  $p = .19$ . This addition did not provide any significant change in variance ( $F$  change = 3.20,  $p = .07$ ). In the final step, the interaction term of nativity status and family obligation was added. The addition of the interaction term did not contribute any additional variance to the overall model,  $R^2 = .02$ ,  $F(3, 186) = 1.32$ ,  $p = .27$ . Thus the interaction term did not add any significant variance that was not already accounted for by nativity and family obligation,  $R^2$  change = .00,  $F$  change = .63,  $p = .43$ . Therefore, the last hypothesis was not supported, as nativity status did not moderate the relationship between any of the cultural values of *familismo* and help-seeking attitudes.

## Supplemental Exploratory Analyses

The ATSPPH-SF measure, which measures help-seeking attitudes, was found to have low estimated level of internal consistency, as Cronbach's Alpha was .64 for the measure. Therefore, further analyses of this measure were conducted using exploratory Factor Analysis (FA) in order to identify the underlying components of the ATSPPH-SF scale.

**Factor analysis.** The 10 items of the Attitudes Toward Seeking Professional Psychological Help- Short Form (ATSPPH-SF) were subjected to principal axis factoring analysis (PAF), using SPSS 20. Prior to performing PAF, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Oklin value was .71 exceeding the recommended value of .6 and Bartlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix.

PAF revealed the presence of three factors with eigenvalues exceeding 1, explaining 27%, 21%, and 10% of the variance respectively. These three factors explain 41.96% of the total variance. An inspection of the scree plot revealed a clear break after the second and third factor. Furthermore, an exploratory analysis utilizing all three factors resulted in some items cross-loading on two factors, therefore to aid in the interpretation of these factors, a promax rotation was performed. The promax rotation solution revealed that four items loaded on factors 1 and 2, while factor 3 showed a loading of two items. Namely, these three factors were associated with Positive attitudes (pro-help-seeking attitudes), Negative attitudes (anti-help-seeking attitudes), and Reliance on self (see Table 6). Both items on factor 3 (*A person should work out his or*

*her own problems and getting psychological counseling would be a last resort*) also loaded on Factor 2, therefore, it was decided to force a two-factor model for further investigation.

Table 6:

*Summary of Exploratory Factor Analysis Results for Help-seeking Attitudes (N = 191)*

Item	Factor Loadings		
	1	2	3
If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief psychotherapy	<b>.75</b>	.20	-.24
I would want to get psychological help if I were worried or upset for a long period of time	<b>.74</b>	.07	-.12
I might want to have psychological counseling in the future.	<b>.64</b>	-.28	.27
A person with an emotional problem in not likely to solve it alone, he or she is likely to solve it with professional help.	<b>.58</b>	-.09	.13
If I believed I was having a mental breakdown, my first inclination would be to get professional attention	<b>.53</b>	.08	-.03
The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	.07	<b>.57</b>	-.02
Personal and emotional troubles, like many things, tend to work out by themselves	.11	<b>.53</b>	.29
Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	-.26	<b>.44</b>	.11

There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help	-.07	.10	<b>.50</b>
A person should work out his or her own problems; getting psychological counseling would be a last resort	.07	<b>.42</b>	<b>.49</b>
Eigenvalues	2.74	2.12	1.05
% of variance	27.44	21.18	10.48

Note: Factor loadings over .40 appear in bold

A forced two-factor component solution was conducted. The two-factor solution explained a total of 36.45% of the variance with Component 1 contributing 27.44% and Component 2 contributing 21.18 %. To aid in the interpretation of these two factors, promax rotation was performed. The rotated solution revealed that all 10 items loaded evenly between the two factors. Factor 1 was named “Positive Help-Seeking Attitudes” and included 5 items about pro-help-seeking attitudes ( $\alpha = .77$ ). Factor 2 was labeled “Negative Help-Seeking Attitudes” and included 5 items about anti-help-seeking attitudes ( $\alpha = .65$ ) see Table 7. Two new scales for the ATSPPH-SF were created to reflect both positive attitudes towards seeking mental health services (Positive attitudes) and negative attitudes towards seeking services (Negative attitudes).

Table 7:

*Summary of Two-Factor Exploratory Factor Analysis for Help-seeking Attitudes (N = 191)*

Item	Factor Loadings	
	1	2

I would want to get psychological help if I were worried or upset for a long period of time	<b>.75</b>	-0.01
If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief psychotherapy.	<b>.72</b>	.02
I might want to have psychological counseling in the future.	<b>.61</b>	-0.07
A person with an emotional problem in not likely to solve it alone, he or she is likely to solve it with professional help.	<b>.58</b>	.01
If I believed I was having a mental breakdown, my first inclination would be to get professional attention	<b>.54</b>	.06
A person should work out his or her own problems; getting psychological counseling would be a last resort.	.06	<b>.68</b>
Personal and emotional troubles, like many things, tend to work out by themselves	.11	<b>.64</b>
The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	.06	<b>.47</b>
Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	-0.27	<b>.46</b>
There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help	-0.07	.39
Eigenvalues	2.74	2.12
% of variance	27.44	21.18

*Note:* Factor loadings over .40 appear in bold

**Descriptive statistics and bivariate correlations of positive and negative attitudes.** Means and standard deviations for both positive and negative help-seeking variables are shown in Table 2. Correlation analyses for positive help-seeking attitudes

indicated a significant relationship with Anglo orientation such that Latino participants who reported lower orientation to the Anglo culture also reported higher positive attitudes towards seeking psychological professional help (see Table 2). In addition family as referent, and competition and personal achievement, were both associated with positive help-seeking attitudes; such that Latinos who strongly believe that their behaviors are a direct reflection of their family and Latinos who believe it is important to be independent and value personal achievement were likely to endorse positive help-seeking attitudes. Similarly, negative help-seeking behavior was also related to the cultural value of family referent and the mainstream value of independence, such that participants who placed minimal importance on these two values were likely to endorse negative attitudes towards help-seeking behaviors.

**Predictors of positive help-seeking attitudes.** Similar to previous analyses predicting help-seeking attitudes, two hierarchical regressions were used to examine the ability of cultural values of *familismo* and mainstream values to predict both positive and negative help-seeking attitudes towards psychological services, after controlling for the influence of socio-demographic variables (age, years lived in the U.S., education, income, and gender) and acculturation. As in previous analyses, multiple regression assumptions were calculated to ensure that there were no violations of the assumptions of normality, linearity, multicollinearity, and homoscedasticity.

In the first multiple regression predicting positive help-seeking attitudes, after all of the socio-demographic variables were entered in Step one,  $R^2 = .12$ ,  $F(5, 156) = 4.04$ ,  $p < .01$  (adjusted  $R^2 = .09$ ). At step two, acculturation variables (AOS and LOS) were added,  $R^2 = .12$ ,  $F(7, 154) = 2.87$ ,  $p < .01$  (adjusted  $R^2 = .08$ ), however this addition was

not significant ( $F$  change = .00,  $p = .94$ ). Finally in step three, all cultural values of *familismo* and both mainstream values were added together, which as a whole the model generated  $R^2 = .14$ ,  $F(12, 149) = 2.02$ ,  $p < .03$  (adjusted  $R^2 = .07$ ). This addition of both cultural and mainstream values did not contribute a significant amount of variance ( $F$  change = .86,  $p = .51$ ). With all predictors in the final model, age ( $\beta = .47$ ,  $p < .01$ ) and gender ( $\beta = .16$ ,  $p < .01$ ) were the only significant contributors of positive help-seeking attitudes (see Table 8).

Table 8

*Hierarchical Regressions Assessing Predictors of Positive Help-Seeking Attitudes (N = 162)*

Variable	$R^2$	$B$	$SE B$	$\beta$
<b>Step 1</b>				
Age	0.12	0.11	0.03	0.49**
Years Lived in U.S.		-0.06	0.02	-0.38**
Education		0.03	0.09	0.03
Income		-0.14	0.22	-0.05
Gender		1.21	0.62	0.15
<b>Step 2</b>				
Age	0.12	0.10	0.03	0.47**
Years Lived in U.S.		-0.06	0.03	-0.34*
Education		0.04	0.09	0.03
Income		-0.14	0.22	-0.05
Gender		1.20	0.63	0.15
AOS		0.08	0.30	0.02
MOS		-0.45	2.05	-0.02
<b>Step 3</b>				
Age	0.14	0.10	0.03	0.47**
Years Lived in U.S.		-0.06	0.03	-0.33
Education		0.08	0.10	0.07
Income		-0.17	0.23	-0.06

Gender	1.31	0.66	0.16*
AOS	0.09	0.30	0.03
MOS	-0.68	2.14	-0.03
Family Support	-1.44	1.85	-0.09
Family Referent	5.06	2.88	0.24
Family Obligation	-0.01	2.91	0.00
Independence	-0.32	0.47	-0.07
Competition	-0.22	0.41	-0.06

\*  $p < .05$ , \*\* $p < .01$

**Predictors of negative help-seeking attitudes.** A second hierarchical regression analysis was used to examine the ability of cultural values of *familismo* and mainstream values to predict negative help-seeking attitudes towards psychological services, after controlling for the influence of socio-demographic variables (age, years lived in the U.S., education, income, and gender) and acculturation. As in previous analyses, multiple regression assumptions were calculated to ensure that there were no violations of the assumptions of normality, linearity, multicollinearity, and homoscedasticity.

In step one, all demographic variables were entered and generated  $R^2 = .01$ ,  $F(5, 156) = .36$ ,  $p = .88$  (adjusted  $R^2 = -.02$ ). At step two, acculturation variables (AOS and LOS) were added to the model and generated  $R^2 = .01$ ,  $F(7, 154) = .28$ ,  $p = .96$  (adjusted  $R^2 = -.03$ ), this addition of acculturation variables was not significant ( $F$  change = .09  $p = .92$ ). Finally in step three, all cultural values of *familismo* and both mainstream values were added, which as a whole the model generated  $R^2 = .12$ ,  $F(12, 149) = 1.65$ ,  $p = .08$  (adjusted  $R^2 = .05$ ). While the final model at Step 3 was not significant, the addition of all five cultural and mainstream values showed a significant increase in variance ( $F$  change = 3.54,  $p < .01$ ). With all predictors in the final model, the cultural value of family as

referent ( $\beta = -.31, p < .03$ ) and independence/self-reliance ( $\beta = -.29, p < .01$ ) were the only two significant contributors to negative help-seeking attitudes (see Table 9).

Table 9

*Hierarchical Regressions Assessing Predictors of Negative Help-Seeking Attitudes (N = 162)*

Variable	$R^2$	$B$	$SE B$	$\beta$
Step 1				
Age	0.01	0.03	0.03	0.00
Years Lived in U.S.		0.02	0.02	0.00
Education		0.09	0.09	0.09
Income		0.22	0.22	0.02
Gender		0.62	0.62	0.05
Step 2				
Age	0.01	-0.01	0.03	-0.03
Years Lived in U.S.		0.01	0.03	0.05
Education		0.10	0.09	0.09
Income		0.06	0.22	0.02
Gender		0.39	0.63	0.05
AOS		0.01	0.29	-0.01
MOS		-0.86	2.05	-0.04
Step 3				
Age	0.12	0.01	0.03	0.06
Years Lived in U.S.		-0.01	0.03	-0.03
Education		0.04	0.09	0.04
Income		0.01	0.22	-0.01
Gender		0.61	0.64	0.08
AOS		0.35	2.05	0.02
MOS		0.05	0.29	0.02
Family Support		0.52	1.77	0.03
Family Referent		-6.09	2.76	-0.31*
Family Obligation		3.61	2.79	0.17
Independence		-1.33	0.45	-0.29**
Competition		0.43	0.40	0.12

\*  $p < .05$ , \*\* $p < .01$

## Discussion

The main objective of the current study was to examine the role of cultural variables, namely cultural values and acculturation, in predicting depression and help-seeking attitudes among Latino adults. In particular, we were interested in investigating how the values of *familismo*; family support, family as referent and family obligation, as well as the mainstream cultural values of independence/self-reliance, and competition/personal achievement, contribute to our understanding of depression and help-seeking attitudes. Several associations among the cultural variables indicating a risky or protective relationship with depressive symptoms confirm those of past research, while others suggest new patterns. Overall, the major findings provide new information regarding the specific cultural values that contribute to mental health. Furthermore, the current study adds new insight into the measurement of help-seeking attitudes among Latinos.

### Depression

It was hypothesized that the cultural values of *familismo* would contribute the greatest variance in predicting depression, above and beyond that accounted for by mainstream cultural values, acculturation, and demographic variables. Moreover, it was predicted that the dimension of *familismo* (family obligation) would be the strongest predictor of depression in this sample. The results of the study did not support this notion, however, other interesting findings were obtained. Nearly half of the participants reported at or above clinical levels of depression, suggesting that this sample experienced moderate to high levels of depressive symptoms. Additionally, the demographic

variables of education, income, and gender significantly predicted depression scores in which lower education, lower income, and being female were associated with higher symptoms of depression.

While initial correlations did suggest that family support was associated with fewer depressive symptoms among Latinos; family support was not a significant predictor of depression in this sample. Instead, the greatest contributors to depressive symptoms were lower income, lower education level, and gender. This finding is consistent with the literature that has linked poverty and low socio-economic status with poor mental health outcomes, where higher poverty rates contribute to greater risk for depression (Gallo & Matthews, 2003). With fewer years of education obtained, it is more likely that there would be limited access to higher-income jobs that would afford them the ability to access better healthcare and other economic resources. In addition, the stressors associated with minimal finances and limited education could create chronic burden that would lead to poor mental health outcomes.

Similarly, the finding that gender is related to depressive symptoms is commonly observed not only in Latino populations but also in non-Latino white populations (Hasin, Goodwin, Stinson, & Grant, 2005; Mendelson et al., 2008, Shattell, Smith, Quinlan-Colwell, & Villalba, 2008). In fact, Latina women have greater rates of depression compared to Latino men (Alegria, Mulvaney-Day, et al., 2007; National Institute of Mental Health, 2000) and experience more depression than African American and Caucasian women (Shattell, et al., 2008). Several studies have suggested for Latina women, cultural values that emphasize self-sacrifice, submissiveness, and encourage

women to put their families first, may inadvertently promote internalization of depressive symptoms (Mendelson et al., 2008; Shattell et al., 2008).

The literature on *familismo* among Latinos has suggested that this cultural value may be protective for depression (Aguilar-Gaxiola et al., 2008). Therefore, it was expected that there would be an inverse relationship between family support and depression, where greater family support would be associated with fewer symptoms of depression. Furthermore, it was hypothesized that the dimension of family obligation would be the strongest predictor of depressive symptoms. It was believed that family obligation would be perceived as burdensome, rather than protective. These results, however, were also not supported, as none of our cultural values significantly predicted depressive symptoms.

Although none of the cultural variables examined were significant predictors of depression, correlational analysis did suggest that positive family support was related to fewer depressive symptoms. This finding is consistent with the literature that has focused on the supportive dimensions of *familismo* within the Latino population. Further explorations of the dimensions of *familismo* by nativity indicated that, among foreign born Latinos, the values of *familismo* were strongly endorsed compared to the U.S. born Latinos. Consistent with the belief that cultural values remain stronger for less acculturated individuals, it is likely that acculturation may be influencing this relationship. Investigating the influence of cultural values on mental health outcomes is still important; however, this research suggests that they may not be a suitable factor in predicting depression. That is, examining the relationship of cultural values with proximal variables

that contribute to mental health, such as discrimination, ethnic burden, and acculturative stress, may be warranted.

### **Attitudes of Help-Seeking**

The second purpose of this study was to examine the role of acculturation, the cultural values of *familismo*, and the mainstream U.S. values on attitudes towards seeking psychological help. Based on the notion that *familismo* in Latino culture connotes that one should not reveal their problems to individuals outside of the family for fear of bringing shame to their family, it was believed that these dimensions of *familismo* would be less related to positive help-seeking attitudes. Therefore, it was hypothesized that the mainstream values would be most predictive of help-seeking attitudes.

The results showed that the mainstream value of independence/ self-reliance was in fact predictive of attitudes towards seeking psychological help. Moreover, the demographic variables of age and gender were also predictive of help-seeking attitudes. Thus, Latinos who reported having a high value of independence/self-reliance were likely to have less favorable attitudes towards help-seeking. In contrast, older Latinos were more likely to report positive attitudes about seeking professional help. This finding can be partially explained by the notion that as we get older we become more familiar with the benefits of seeking medical and psychological assistance, and familiarity with the health care system increases. Gonzalez, Alegria, and Prihoda (2005) also reported similar results in their study of attitudes towards seeking mental health treatment among African American and Latinos. They found that attitudes towards psychological treatment improved with age and among Latino adults, positive attitudes towards help-seeking were significant for the oldest group of individuals, ages 35-44 years.

Very few studies have examined the relationship between mainstream U.S. values and attitudes towards seeking mental health services, in particular, among Latinos. Values such as independence/ self-reliance, competition and personal achievement, are values that have not been traditionally associated with Latino culture. Instead, these values are more consistent with individualist cultures rather than collective cultures (Hofstede, 1980; Marin & Marin, 1991). Therefore, the finding that independence/ self-reliance was predictive of unfavorable attitudes towards help-seeking; even after controlling for demographic information, acculturation, and values of *familismo*, was very surprising. In a similar study examining that examined the relationship between self-reliance and the use of mental health services among Puerto Ricans, they found that Latinos who identified as self-reliant were more likely to report negative attitudes towards help-seeking (Ortega & Alegria, 2002). In fact, they reported that participants who identified as self-reliant were like to report that they viewed seeking professional mental health services as a useless way of dealing with their problems and were more likely to report feeling uncomfortable if their family members were to find out that they were seeking mental health services (Ortega & Alegria, 2002).

The last aim of the current study was to examine whether nativity status moderated the relationship between cultural values of *familismo* and depression and between *familismo* and help-seeking attitudes. Given the surprising findings that indicated a weak relationship between the cultural values of *familismo* and depression and *familismo* and help-seeking attitudes, it was hypothesized that a *moderator* variable (nativity status) was responsible for this weak relationship. Results, however, indicated that our predictions were not supported and nativity status was not a significant

moderator in the relationship between *familismo* and depression or in the relationship between *familismo* and help-seeking attitudes.

### **Attitudes Towards Seeking Psychological Help Scale**

After reviewing the data, it was surprising that initial zero-order correlations with the ATSPPH-SF scale and most of the predictor variables revealed no association between these variables. After carefully examining the items on the ATSPPH-SF scale and the low reliability coefficients, we decided to conduct supplementary analyses examining the structure of the scale. The items on the short-form ATSPPH scale were drawn from two of the four dimensions of attitudes on the original scale; the Recognition of Need for Psychotherapeutic Help, and Confidence in Mental Health Practitioners (Fischer & Farina, 1995). Although items were taken from these two factors, the ATSPPH-SF was designed to measure a single dimension of help-seeking attitudes and produce a single score. In previous studies, reliability and validity have been reported as good with a Cronbach's alpha of .84; however, in this study reliability was low (alpha = .64) and warranted further investigation of items.

After conducting an exploratory PAF, results suggested that a three-factor model best fit the data. Five of the items in one factor described positive and willing attitudes towards seeking mental healthcare. The second factor contained three items that highlighted disapproving and doubtful attitudes towards seeking mental healthcare. Finally in the third factor, only two items were identified, which both conveyed reliance on one's self. One of these two items (i.e., *A person should work out their own problems; counseling would be a last resort*) also loaded on the second factor. Therefore, after careful examination of the factor loadings and item content, we decided to conduct a

forced two-factor solution, predicting that both items on the third factor would load on with the other negatively worded items.

Results from the two-factor solution revealed five positively worded items that described a positive inclination towards seeking psychological services both in general and in the event of experiencing significant distress. The five positively worded items were named “Positive Help-Seeking Attitudes”. The remaining five items described both: dismissive attitudes towards seeking psychological help and reliance on oneself to solve their own problems; therefore these five negatively worded items were named “Negative Help-Seeking Attitudes”. Similarly, Elhai and colleagues (2008) found a two-factor solution of the ATSPPH-SF using EFA with a student population, which they named, Openness to Seeking Treatment for Emotional Problems and Value and Need in Seeking treatment. It is important to note that, while we labeled one of the factors “negative help-seeking attitudes”, these items represent more of an unwillingness to seek services in the face of distress and reservations about treatment rather than actual “negative attitudes”.

**Supplementary analyses.** After examining the two new scales of help-seeking attitudes, results revealed that age and gender were the only variables that significantly predicted positive help-seeking attitudes. Again these results are consistent with and support previous research that older Latinos are more likely to seek mental health services than younger adults (Leaf et al., 1987; Ortega & Alegria, 2002) and that women report more willingness to seek mental health treatment than men (Fischer & Turner, 1970; Sanchez & Atkinson, 1983).

When examining predictors of negative help-seeking attitudes, results indicated that family referent and independence/self-reliance were the strongest predictors. These values were inversely associated with negative help-seeking, meaning that Latinos who reported higher values of independence/ self-reliance as well as family as referent, were likely to have less negative attitudes towards seeking mental health services. These findings are very interesting, in that cultural values were stronger predictors of negative attitudes of help-seeking rather than positive attitudes. Given that both of these cultural values were predictive of *less* negative help-seeking attitudes, it is important to first conceptualize what less negative help-seeking attitudes means. As previously mentioned, the negative help-seeking scale refers to unwillingness to seek services and beliefs that one should work out their own problems without the aid of psychotherapy. Therefore, it is plausible that less negative attitudes may connote ambivalence towards seeking mental health services. Using this explanation then, our findings suggest that Latinos who place a strong importance on the value of independence/self-reliance are likely to have ambivalent attitudes towards seeking psychological help.

Ortega and Alegria (2002) found that self-reliance was negatively associated with help-seeking attitudes among Latinos, which differs from our findings. However, they used a dichotomous variable of self-reliance and suggested that their measure of self-reliance may have been too restrictive and could not capture the difference between attitudes and perceptions of self-reliance. Therefore, one explanation for the differences in findings can be attributed to our use of a continuous measure of self-reliance and independence that assessed both attitudinal and behavioral aspects of this value. Another notable difference is that we examined predictors of negative help-seeking attitudes

exclusively. However, when we examined predictors of help-seeking using all ten items of the scale, we found similar results reported by Ortega and Alegria (2002).

To our knowledge, this is the first study that has explored the associations between the different cultural values of *familismo* with help-seeking attitudes. Therefore, our finding that family as referent was predictive of less negative help-seeking attitudes warrants further investigation in future studies. Family as referent states the belief that Latinos refer to their families when making important decisions in their lives. This value also places importance on preserve family honor (Sabogal et al., 1987; Vega et al., 2001).

Cultural barrier theories have proposed that given the stigma associated with mental health illness, Latino family members who value family as referents would be less likely to seek services, out of fear of bringing “shame to their family” (Kouyoumdjian et al., 2003, Zayas & Bryant, 1984). Our finding that Latinos who place high value on family as referent was predictive of less negative help-seeking attitudes or “ambivalent” attitudes could be conceptualized within the context of Latinos feeling burdened by the tension of having positive and negative attitudes towards seeking psychological services. On one hand, if they are experiencing mental health problems they may be willing to seek services in order to avoid burdening their family members with their problems. On the other hand, they may not want to bring shame to their family by admitting to mental health illness, therefore it is plausible that this family value can cause ambivalence towards seeking mental health services.

### **Limitations**

A few limitations of the current study should be noted. First, the current study included a relatively homogenous sample of low-income, mostly female, and mostly

Mexican American adults from the Midwest. Therefore, these findings may not be generalizable to all Latinos. Second, the current study decided to treat the *familismo* and mainstream subscales as separate variables instead of using the original conceptualized construct scores. Though the scales of *familismo* and mainstream values were originally developed as higher order constructs, we were interested in examining the separate dimensions of these values and therefore decided not to use these scales. Finally, the cultural values investigated accounted for very little of the variance in predicting depressive symptoms and help-seeking attitudes. It is possible other cultural variables related to depression and help-seeking need to be investigated, therefore future research in this area might consider examining a more comprehensive array of cultural values using various instruments that capture the multi-dimensional aspects of the Latino culture.

### **Implications and Future Directions**

The goal of the present study was to examine how cultural factors, such as *familismo*, acculturation, mainstream values of independence/self-reliance and competition/personal achievement; and socio-demographic variables can predict help-seeking attitudes and depressive symptoms among Latino adults. Having an understanding of how these sociocultural factors impact the likelihood of developing depression is important not only to clinical practice, but also gives support to the current theory and research. Moreover, gaining further understanding of the factors contributing to the underutilization of mental health services among Latinos is of particular importance.

Research exploring barriers to treatment has been extensive and complex. This study differs from current literature in that we explored cultural factors that have not been commonly examined within the context of predicting help-seeking attitudes. Very few studies have examined how the separate dimensions of *familismo* and mainstream values contribute to help-seeking attitudes and depression. Therefore, this study lends further research to current theories on the sociocultural factors attributing to depressive symptoms and mental health service utilization among Latinos.

Many of the cultural variables examined did not significantly predict the outcome variables studies. Results from the study illustrated that socio-demographic variables such as income and education are still some of the strongest risk factors for symptoms of depression, even when accounting for factors such as acculturation and cultural values. These findings unfortunately do not support the literature that has examined *familismo* as a protective factor against the negative effects of depression. Instead, these findings stress that while cultural variables are important to investigate; special attention needs to be placed on how stressors associated with lower income and lower education increase the risk for depression. Recent estimates by the U.S. Census Bureau have reported that roughly 25.3% of Latinos live below the federal poverty line, which is almost twice that of all races (14.3%). Therefore, greater efforts need to be made to provide affordable and accessible mental health services to this population. A lower education level not only places Latinos at risk for fewer job opportunities and possible financial hardship, but it may also contribute to the miseducation of psychopathology and mental health treatments.

As previously mentioned, very few studies have investigated values of *familismo* and mainstream values in the context of predicting attitudes towards seeking psychological help. Therefore, these results illustrate novel findings of predictors of help-seeking attitudes. Future studies replicating these findings are warranted since very little research has examined the role of both cultural and mainstream values in this area.

Another important implication of this study is the finding that Latinos in this sample highly endorsed both cultural values of *familismo* and mainstream values, rather than one or the other. The mainstream values of independence/self-reliance and competition/personal achievement are values typically associated with individualistic culture, and are not consistent with collectivist values observed in Latino culture. Therefore, an assimilation perspective suggests that Latinos who endorse mainstream values are those with greater exposure and adaption to the U.S. culture. Results from this study, however, revealed that foreign-born Latinos reported higher means of all three family values and both mainstream values, compared to U.S. born Latinos. To help explain these findings, researchers have suggested that Mexicans who immigrate to the U.S. are already aware of the values important to economic and social success in the U.S. culture. Therefore, foreign-born Latinos understand that they must endorse these values in order to flourish in the U.S. (Knight et al., 2010; Portes & Bach, 1985). Similarly, Latinos who adapt a bicultural identity are also likely to report endorsing both traditional cultural values and mainstream values. Latinos who endorse both cultural and mainstream values highlights the importance of considering a dual cultural adaptation framework when examining factors associated with mental health illness and service use.

A clinical implication of this study stresses the importance of the Latino family as a factor in the underutilization of mental health services. If family as referent is associated with ambivalence towards seeking psychological help, then clinicians working with Latinos need to give special attention to the family system rather than just the individual. Helping Latinos understand the getting psychological help is not only beneficial for them individually but also may provide indirect benefits family members maybe warranted.

In regards to value of independence/self-reliance, while reliance on ones' self to overcome personal obstacles and problems has been a coping strategy commonly used by individuals from Latino backgrounds and may be functional and beneficial for minor distress. It is important to understand that the risk in encouraging this type of behavior is that it may discourage Latinos from seeking services when serious mental health problems arise. Findings that high independence/self-reliance was associated with negative help-seeking was supportive of previous findings that observed the same attitudes from Latino adults. While self-reliance can be perceived as a beneficial tool, since the individual is actively working through his or her own problems. The danger in promoting this behavior, however, arises when the individual is dealing with moderate to severe distress and the high self-reliance interferes with them seeking appropriate mental health treatment. Therefore, clinicians and researchers need to be mindful of overly promoting self-reliance as a positive coping strategy in the context of mental illness.

#### Future directions

As previously stated, future studies are needed to verify the findings of the current study and proceed examining the relationship between cultural values inherit to Latino

and mainstream culture and help-seeking intentions among Latino populations. Other studies may also consider examining how these factors differ based on Latino ethnic groups. Much of the literature as focused on Mexican Americans and therefore these findings cannot be generalized to all Latinos. Examining the factors unique to Mexican Americans, Puerto Ricans, Cubans, South Americans and others would not only add to the research in this area, but it would also inform treatment planning among clinicians and community-based clinics. Finally, future research should consider examining factors beyond acculturation and culture variables (e.g. institutional barriers) that might provide a better explanation for the underutilization of mental health services among Latinos.

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